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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|------------------------------|------------------|
| 10/600,617 | 06/23/2003 | Kinya Aota | 503.35255VX6 | 6836 |
| 20457 7590 02/20/2007 ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-3873 | | | EXAMINER CANFIELD, ROBERT | |
| | | | ART UNIT 3635 | PAPER NUMBER |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 02/20/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/600,617

Applicant(s)

AOTA ET AL.

Examiner

Robert J. Canfield

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,5,6 and 8-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,5,6 and 8-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 08/820,231.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/20/06 has been entered. Claims 3, 5, 6 and 8-15 are pending. Claims 1, 2, 4 and 7 have been canceled.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3, 5, 6 and 8-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 9:

at line 9 "said thickness direction of said member" lacks antecedent basis. The examiner suggests amending to "a thickness direction of said member" or "the thickness direction of said member",

The language of lines 15 and 16 is completely unclear. The examiner suggests amending to - - is positioned adjacent the third plate in the range of the thickness of the third plate - -,

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The language of lines 33 and 34 is completely unclear. The examiner suggests amending to - - is positioned adjacent the third plate in the range of the thickness of the third plate - -,

At line 43, "a second corner portion" is unclear as a first corner portion has not been defined,

At lines 43 and 44 the language "from said second plate to said second recessed portion" is unclear, as understood the corner portions are reference numerals 33b and 34b, it is unclear how they can be "from said second plate to said second recessed portion", it appears they are actually outer corners of the first and second plates, and

The language "a range of an extension line in said thickness of said third plate" is unclear.

In claim 12:

the language "in a range, in the horizontal direction adjacent a thickness of said member" at lines 17 and 18 and the language "in said range, in the horizontal direction, adjacent said thickness of said member" at lines 20 and 21 is unclear and indefinite.

In claim 13:

at line 9 as in claim 9, "said thickness direction of said member" lacks antecedent basis,

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as in claim 9, the language of lines 15 and 16 is completely unclear. The examiner suggests amending to - - is positioned adjacent the third plate in the range of the thickness of the third plate - -,

In claim 14:

at line 12 as in claim 9, "said thickness direction of said member" lacks antecedent basis,

as in claim 9, the language of lines 15 and 16 is completely unclear. The examiner suggests amending to - - is positioned adjacent the third plate in the range of the thickness of the third plate - -,

as in claim 9 the language "a range of an extension line in said thickness of said third plate" is unclear.

In claim 15:

as in claim 9, the language of lines 12 and 13 is completely unclear. The examiner suggests amending to - - is positioned adjacent the third plate in the range of the thickness of the third plate - -,

The examiner further suggests inserting the word "outwardly" after "facing" at lines 13 and 29 of claim 9, at lines 10 and 15 of claim 12, line 13 of claim 13, line 13 of claim 14, line 9 of claim 15.

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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5. Claims 3, 8, 12, 13 and 15 as best understood are rejected under 35

U.S.C. 102(b) as being anticipated by U.S. Patent 3,984,961 to Chieger et al.

Chieger provides a first plate 19, a second plate 21 and recessed portions 24 and 25 for carrying out a welding operation (column 2, lines 31+) at a connection portion of the first and second plates with third plate 22. The recess portions are shown having vertical and horizontal surface opening in the claimed direction and as best understood the horizontal surface is positioned in a range, in the horizontal direction, adjacent a thickness of the member. The frame member is claimed alone as adapted to used in a friction stir welding. The rotary tool is not an element of the frame member. As Chieger provides all of the structure of the claims it inherently is capable of performing the recited intended use.

6. Claims 5, 6, 9-11 and 14 as best understood appear to contain allowable subject matter if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The prior art does not teach the corner portions above/below the thickness of the third plate.

7. Applicant's arguments filed 10/20/06 have been fully considered but they are not persuasive.

Applicant argues that Chieger fails to provide the horizontal surfaces facing outwardly in the thickness direction of the member are positioned in a range, in

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the horizontal direction, adjacent a thickness of the member. AS noted in the 112(2) rejection and as discussed in the telephonic interview of 02/15/07, this language is unclear. During the interview Mr. Solomon stated that the intent of this language was that the horizontal surfaces are adjacent the third plate within a range of the thickness of the third plate. This is not what is claimed. The examiner would agree that entire width of the horizontal surfaces of Chieger do not fall within extension lines of the thickness of the third plate 22.

Applicant further argues that the friction stir welding and rotary tool are more than mere intended use and provide recitations that define properties and/or structure of the members. This is not found persuasive. The claims are directed to members adapted to be used in friction stir welding and defined by the structure of the members themselves. The examiner fails to see how the tool defines any property or structure to the members. The patentability of the product itself is not dependent upon the process it is intended to be used in. See MPEP 2113 and

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert J. Canfield whose telephone number is 571-272-6840. The examiner can normally be reached on M-Th.

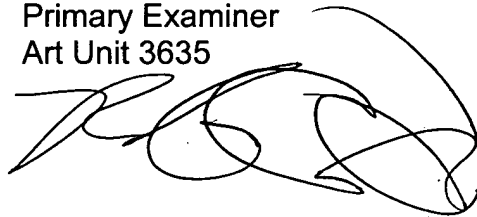
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Friedman Carl can be reached on 571-272-6842. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

02/15/07

Robert J Canfield
Primary Examiner
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A handwritten signature in black ink, appearing to be 'RJC', written over a large, loopy circular flourish.